

### Common Disease - by milk.

1. Bovine T. B. by pasteurization

1. 9.6% caused by still infects children under 4 yrs.

2. Ingestion infection

3. Controlled by pasteurization.

2. Typhoid & Paratyphoid fever

1. Most frequent.

2. Cases from raw milk.

3. Septic Sore Throat, flu, scarlet fever from streptococcus in milk

4. Milk-sick disease in U.S.

### Supervised Herd Plan.

1. Any owner can have his cows T.B. tested.

2. All positives must be slaughtered.

3. No compensation.

### Accredited Herds.

1. Herds must have passed 2 clean tests at intervals of 1 yr.  
or if reactors are found - intervals of 6 mos.

2. " " " herd is tested " "

3. Man must have 10 cattle neg. & have a membership  
in Accredited Herd Plan.

### Bangs Disease

1. High in animals

2. Communicable to humans.

3. 1896 Dr. Bangs - Denmark.

4. If they have disease - isolated & isolated.

Herd Test - Only definite way of detecting animal diseases.

### Controlling Contamination of Milk.

#### I. Sediment Test

a. overstrained. b. scum visible & eye lid doesn't show presence of dissolved dirt or infection by coming 2 diary.

c. chlorine cleansing insufficient at farms.

II. Cooling - 1. cans immersed in ice or water 2. Thermometer.

#### III. Control of Pasteurization

1. methylene blue reduction test.

2. Coliform Test

3. Phosphate "

## Producer & Safe Milk -

1. Responsib - health of animals, sanitation, provision for even supply & reg. daily delivery of milk to urban cities.
2. Eradication of Bangs, mastitis & Bovine T.B.
3. Pasteur will make milk from diseased animals safe - but not dirt laden milk clean.
4. Hay supply in clean, dust or stable conditions - noisy milk.
5. Feed carefully & flavours, reg. for supply & scientific & quality of milk & animal.
6. As soon as milk drawn - cooled to  $40\text{ or }50^{\circ}\text{ F}$ .

## Cleansing & Disinfection in Small Dairy -

Cleansing - process whereby an unclean surface action of detergent sol. to remove all visible dirt.

Disinfection - subsequent treatment rec. to destroy remaining bacteria or visible contamination.

## Ways of Assuring a Sanitary Dairy -

1. Possession of plant & equip readily cleaned.
2. Desire of intelligent dairy man for cleanliness.
3. Use of compounds which R good detergents & good rinsing properties. Hand washing - free from hydroxide.
4. Disinfecting Agents - steam, hot water, chemical sterilizer Chlorine with steam or hot water.
5. Equipment cleansed right after process operations - rinsed, washed & flushed with warm washing sol. - rinsed again with  $H_2O$  - & a satisfact. bactericidal treatment (chlorine) 100 parts per million of chlorine - contact periods - 2 min.
6. All piping removed daily.
7. Bottles - washed by hand or machine. where no Steam - motor driven brush & a 3 compartment wash & rinse tank. Then rinsed again in warm  $H_2O$  & disinfected in a chlorine Sol.  $H_2O - 110^{\circ}\text{ F}$ . 211

Mechanized Washing - H<sub>2</sub>O Sol. - 120° F.  
15° rinse - 150° F.  
8° " " - 180° F.

8. Can Washing & Sterilizing - Same as  
bottles in small dairy - steam sterilizing.  
Rims carefully cleaned.

9. Periodic Checks - visual & lab tests -  
milk tested. Bottles, cans, etc. Consists of  
rinsing with a known quantity of sterile H<sub>2</sub>O &  
making a standard plate count of the final  
water.

## Diseases Due to Deficiency of Food

Report 9

Body needs food - growth  
body .. & metabolism  
energy.

2 Classes:-

1. fuel
2. building

most common foods contain both - milk.  
Many only one - starch, fuel.

Cause of Malnutrition various.

1. worry.
2. lack of food.
3. senile.
4. long income.
5. not knowing.

Substances of commoner importance found in food  
essential to normal nutrient & growth

Nut A - <sup>lack -</sup> ~~spontaneous~~ disease of eye  
~~night blindness.~~

red blood cells弱.

Nut B - Biotin - carbon dioxide, skins, skins  
raw green vegetables, milk eggs & meats  
water. Found in Liver by 2 methods

Nut C - Thiamine - <sup>vitamin B</sup> found in  
stomach, appetite & imp. in maintaining  
metabolism of peripheral tract.

Nut D, E, F - Imp. to mammals.

Nut G - Palmitic acid -  
gastro-intestinal  
fat soluble substances  
disturbances

Fried beef & veget. Other drugs & drugs  
T.B. syphilis, etc.

Conclusion

Dit C - scaly - contained in small white blisters  
by Dr. Chatterjee - lemorage.

found in fruit - root veg.

Dit D - rickets - marked alteration of bones -  
soft & pliable - lack of deposit of  
newer const. signs - compaction,  
softibility. *Not in sunny place*

Prevention - lot of exposure to sun - vap in water  
mercury-vapo and lamp -

lot liver oil.

Dit E - rachitosis?

Bitter taste also bad, what  
goes in adren. etc. *lethy veg.*

Dit H - want for iodine & chlorine of  
blood - dry - dried hair, pointed  
nose. milky & softibility - genuine.

Bitter - thyroid - lack of iodine

more frequent } during fetal life - *now - present in few adults.*  
} pale yellow - *green - greenish*

endemic in vicinities where there is less iodine. Ex. goitrous - a  
rare condition in individuals.

chloracne - *e.g. loss of skin*  
*melitis* *fat, weak*

Deficiency of correct production of nucleus  
of paroxysm.

accumulation of fatty tissue in body.

Indulgence, overeating etc. sometimes hereditary.

Ventilation.

Air - Carbo .04%  
 O<sub>2</sub> - 20%  
 N - 80%

1. Movement - free moving safe.  
 Draught beneficial.

Temp. Humidity + motion - imp. - not composition

2. Temp. raised by bodies.

Good vent - cool air - not cold

Humidity relative to temp.

constantly increased by moisture of human body.

Treating impure air by contact of outside air.

Impure air comes from our bodies - breathing, etc.

Industrial Ventilation.Natural System -

Mechanical system - air moved by fans.

Dust - collection close to source as possible.

Method - give air by fans - suck out old air.

Windows on 2 sides of room.

- On Mines - 1. safety for underground workers.
2. To remove gases & dust.
3. To provide air flow during emergency.

Object of Ventilation.

1. Keep air continually changing in room
2. Even temp -  $68^{\circ} F$
3. Avoid excessive dryness.

Suggestions for good Vent.

1. Have them placed away from radiator.
2. Open Wind. top & bottom.
3. 400 cu
4. Enlarge heat & constant circulator

5. Ventilate by several small openings instead of 1 large one.
6. Bedroom windows well opened.
7. Kitchen well aired - not fumes this house.
8. Place dehumidifiers placed in room near radiators. Air circulated in  $68^{\circ}$  - warmed to body temp.

Tests -

1. comfort of occupants.
2. Ability of man in Room 2 work.
3. General health.
4. 3rd School - 1 if floor cold - badly ventilated.

All effects Experienced by Body in bad vent.

causes:

1. elevation of body temp.
2. increase in reducing heat of body.
3. slight lowering of blood pressure.
4. no effect on rate of respiration acidosis of blood or dissociation of oxy-hemoglobin and rate of metabolism.
5. Inclination

Stagnant air - lack of appetite — area of stagnant air around body producing effects by excess body heat

Outdoor

20.81 O<sub>2</sub>.  
79.51 Nitrogen  
0.03 CO<sub>2</sub>

Volume

16.03 O<sub>2</sub>  
79.55 N<sub>2</sub>  
4.38 CO<sub>2</sub>

Safe standards for erection  
adequate light & ventilation  
sanitary provisions  
fire protection

Light & Vent made certain by

1. limiting proportion of given city lot which can be used for dwelling - 15% cover floor, 25% or interior height often 7 story houses more, windows and glass less than 10% of total area - in less than 7 story buildings 20% & under 10% - in less than 7 story buildings 30% & under 10% - in less than 7 story buildings 40% - in less than 7 story buildings 50% - in less than 7 story buildings 60% - in less than 7 story buildings 70%.
2. disposal of solid waste
3. limitation of number of persons
4. storage of dangerous articles

New and growing a problem.

Cold - most - much on a winterized way  
Cries - big 10° reduction from 70° normal & in  
most young & men - 55 or 60° (70° heat) - 2 with a  
2 m. sec. heat insulator comes to early & rapid adaptation  
to new cool post - 2 don't complicated by  
radiating surfaces

Heating - depends on kind of insulation & type

Temp - 60° & above 70° effect

1. slows down metabolism

2. increases respiratory rate & waste metabolism

3. makes man less able & not changes in temp

Temperature

1. body heat increases & divides

2. slow rate of metabolism

ways of preventing heat loss

1. by outer clothing

2. insulating walls

3. storm windows

Types of fuel - you will cool

### Types of Central Heating.

- 1 Hot water - most common form - can be used for central heating or as a water or steam supply part of central heating system of working heat & water.   
 3 ways of working heat & water  
 1 Steam radiators  
 2 Hot water -  
 - Warm air system - circulating from boiler to floor & outside of room. Note this.  
 2 Steam system - condensation of steam in coils. Enter from top - pipe or other end at bottom allows to bubble back to formate as water  
 3 Hot water system - Must be full of water - 100° min. Total 4 overfull

### Food in Home -

- 1 Kitchen - not a dining - large & airy - sink will be & c. H. - all round & ventilates
- 2 Cook - cleaning & washing - floor 11' 9" wide for chairs - 3' 3" by 10' 6" etc
- 3 Side - washroom - system - floor from sink, 6' 6" by 9' 6" - side for
- 4 Preparing food - 1. Cook forges  
 2. Large oven for food.
- 5 Dish - up your hand w  
 6. Sink - wash hand and  
 7. Wash all fruits & veg  
 8. Rinse milk top

6 Refid - Dishes - keep with the dishes.  
 Sleep covered

6 Storage - no cold place & approach  
 Increase digestibility - fill water

Cleaning in house -

Kitchen - not dark & damp - food stored  
dry & clean. White walls.

Bathroom - Toilets cleaned & flushed  
with  $H_2O$ . Care with colds traps, etc.  
Cleaned glass & carefully sweep mirror  
back or back floor & frequent hand washing  
If ever coated with ammonia, slothe, etc.  
Laundry Room - paper bats & towels & good  
use of tub. Shelves & large no. wall area  
Cleaning - Vacuum - no opening banisters,  
using oil kerosene oil.

Floor - clean cloth and towels. Wax - hold over  
Clean bushes - scrap removing around base only  
using tree with boiling - change often -  
Nail Polish - clean & easy - nail off as much  
Nails off or not well. Don't keep nail  
older than 2nd year above

Almond Butter - infestations last on the skins  
areas in sun & strong helping

Dogs - Scratches give you skin & skin  
later dogs sweep to infesting longer  
- raised blisters in throat  
dog often gets away  
dog of claws, custom etc dangerous

Way for Robin up

Parakeets - from pet birds.